



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/631,013	07/31/2003	Hugh E. McLoone	003797.00541	9522

28319 7590 12/02/2004

BANNER & WITCOFF LTD.,
ATTORNEYS FOR MICROSOFT
1001 G STREET, N.W.
ELEVENTH STREET
WASHINGTON, DC 20001-4597

EXAMINER

CULLER, JILL E

ART UNIT

PAPER NUMBER

2854

DATE MAILED: 12/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/631,013

Applicant(s)

MCLOONE, HUGH E.

Examiner

Jill E. Culler

Art Unit

2854

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20, 23 and 24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20, 23 and 24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 September 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claims 6-7 are objected to because of the following informalities:

In claim 6, on line 2, it appears that the word "further" is redundant and applicant intends to claim the input device is a trackball device. For the sake of furthering prosecution, this interpretation has been assumed by the examiner.

Appropriate correction and/or clarification is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4, 6-10, 13-16 and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,288, 706 to Leman in view of U.S. Patent No. 5,621,436 to Solhjell.

With respect to claim 1, Leman teaches a computer keyboard, 20, configured for navigation of a graphical user interface of a host computer, comprising: a first navigation section, 40, including a first input device, 80, see column 3, lines 26-29, configured to receive manual movement according to a user-selectable mode, see column 5, lines 38-47, and responsive thereto configured for scrolling content items of a display screen relative to the display screen along perpendicular axes; see column 4, lines 56-59, a

second navigation section, 40, including a second input device, 80, configured to receive manual movement and responsive thereto, see column 3, lines 26-29, and an alphanumeric section laterally disposed between the first navigation section and the second navigation section. See Figure 1 in particular.

Leman does not teach the first input device is configured for freeform moving a graphical pointer relative to the perpendicular axes or the second input device is configured for moving a graphical pointer relative to the perpendicular axes.

Solhjell teaches a keyboard, 22, having a pointing device, 35, configured for moving a graphical pointer relative to perpendicular axes. See column 1, lines 26-31 and 38-47.

It would have been obvious to one having ordinary skill in the art at the time of the invention to use the graphical pointer configuration of Solhjell with either the first or the second pointing device of Leman in order to be able to scroll the image and move the graphical pointer at the same time.

With respect to claims 2-4, Leman teaches the first input device, 40, includes a trackball assembly, 80, including a spherical member being rotatably configured to receive the manual movement;

Leman does not teach a scrolling sensing system that determines when said spherical member is rotated for scrolling along one of the perpendicular axes, or configured to sense a transition state of the spherical member when the member is rotated for a first directional scrolling along one of the perpendicular axes and

responsive to the transition state change to a second directional scrolling along the other of the perpendicular axes.

Solhjell teaches a scrolling sensing system that determines when said spherical member is rotated for scrolling along one of the perpendicular axes, or configured to sense a transition state of the spherical member when the member is rotated for a first directional scrolling along one of the perpendicular axes and responsive to the transition state change to a second directional scrolling along the other of the perpendicular axes. See column 2, lines 7-26.

It would have been obvious to one having ordinary skill in the art at the time of the invention to use the scrolling sensing system of Solhjell with the input device of Leman in order for the input device to be able to respond appropriately to user input.

With respect to claim 6, Leman teaches the first input device and the second input device each comprises a trackball device. See column 3, lines 31-34 and Figure 1 in particular.

With respect to claim 7, Leman teaches the first input device further comprises a scroll wheel assembly, 583. See column 6, lines 65-67 and Figure 6B.

With respect to claims 8-10, Leman teaches an input device comprising a touchpad, 784, see column 7, lines 4-9 and Figure 6D, and teaches this device comprises either the first input device or the second input device, while the other input device comprises a trackball device. See column 6, lines 60-65.

With respect to claim 13, Leman teaches a computer keyboard, 20, configured for navigation of a graphical user interface of a host computer, comprising: a keyboard

housing, 21; a trackball device, 80, disposed with the keyboard housing having an opening, said trackball device having a movable ball, 81, within said opening and said movable ball being configured to receive manual movement according to a user-selectable mode, see column 5, lines 38-47, and responsive thereto, see column 3, lines 26-33, configured for scrolling content items of a display screen relative to the display screen in a vertical direction and a horizontal direction, see column 4, lines 56-59; a second input device configured to receive manual movement and responsive thereto, column 3, lines 26-29; and an alphanumeric section being disposed between the trackball device and the second input device. See Figure 1 in particular.

Leman does not teach the first input device is configured for freeform moving a graphical pointer relative to the perpendicular axes or the second input device is configured for moving a graphical pointer relative to two dimensions of the image display screen.

Solhjell teaches a keyboard, 22, having a pointing device, 35, configured for moving a graphical pointer relative to two dimensions of the image display screen. See column 1, lines 26-31 and 38-47.

It would have been obvious to one having ordinary skill in the art at the time of the invention to use the graphical pointer configuration of Solhjell with the first or second pointing device of Leman in order to be able to scroll the image and move the graphical pointer at the same time.

With respect to claims 14-16, Leman does not teach a scrolling sensing system that determines when said movable ball is rotated for vertical scrolling or horizontal

scrolling, or configured to sense a transition state of the movable ball when the member is rotated for vertical scrolling and responsive to the transition state change to horizontal scrolling, or for horizontal scrolling and responsive to the change to vertical scrolling.

Solhjell teaches a scrolling sensing system that determines when said movable ball is rotated for vertical scrolling or horizontal scrolling, or configured to sense a transition state of the movable ball when the member is rotated for vertical scrolling and responsive to the transition state change to horizontal scrolling, or for horizontal scrolling and responsive to the change to vertical scrolling. See column 2, lines 7-26.

It would have been obvious to one having ordinary skill in the art at the time of the invention to use the scrolling sensing system of Solhjell with the input device of Leman in order for the input device to be able to respond appropriately to user input.

With respect to claim 19, Leman teaches an input device comprising a touchpad, 784, see column 7, lines 4-9 and Figure 6D, and teaches this device comprises either the first input device or the second input device, while the other input device comprises a trackball device. See column 6, lines 60-65.

With respect to claim 20, Leman teaches all that is claimed, as in the above rejection of claim 13, and that the keyboard is wireless. See column 4, lines 19-22 and Figure 2 in particular.

4. Claims 5 and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leman in view of Solhjell as applied to claims 1-4, 6-10, 13-16 and 19-20 above, and further in view of U.S. Patent No. 4,720,703 to Schnarel Jr. et al.

Leman and Solhjell teach all that is claimed, as in the above rejection of claims 1-4, 6-10, 13-16 and 19-20 except for a scrolling sensing system that determines when the spherical member is rotated for directional scrolling along one of the perpendicular axes to a threshold level after a transition state of the directional scrolling so as to maintain said scrolling.

Schnarel, Jr. et al. teaches a scrolling sensing system that determines when an input device, 40, is manipulated for scrolling along a perpendicular axis to a threshold level after a transition state of the directional scrolling so as to maintain said scrolling. See column 4, lines 19-28.

It would have been obvious to one having ordinary skill in the art at the time of the invention to further modify the invention of Leman and Solhjell to have the additional scrolling sensing configuration of Schnarel Jr. et al., to be able to explore areas on the screen outside the original image area.

5. Claims 11, 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leman in view of Solhjell as applied to claims 1-4, 6-10, 13-16 and 19-20 above, and further in view of U.S. Patent No. 5,874,939 to Galvin.

Leman and Solhjell teach all that is claimed, as in the above rejection of claims 1-4, 6-10, 12-16 and 19-20 except that the user-selectable mode is responsive to voice input.

Galvin teaches a keyboard input device which is responsive to voice input. See column 3, lines 55-62.

It would have been obvious to one having ordinary skill in the art at the time of the invention to further modify the invention of Leman to use the voice input capabilities of Galvin in order to give the user more flexible control over the input devices.

6. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Leman in view of Solhjell as applied to claims 1-4, 6-10, 13-16 and 19-20 above, and further in view of U.S. Patent No. ~~4~~5,374,942 to Gilligan et. al.

Leman and Solhjell teach all that is claimed, as in the above rejection of claims 1-4, 6-10, 13-16 and 19-20, except that the first input device is configured to adjusting a scale of a said content item of a display screen.

Gilligan et al. teaches an input device configured for adjusting a scale of a content item of a display screen. See column 3, lines 24-42.

It would have been obvious to one having ordinary skill in the art at the time of the invention to further modify the first input device of Leman to have scale adjustment capability, as taught by Gilligan et al. in order to broaden the functionality of the input device.

Response to Arguments

7. Applicant's arguments filed September 17, 2004 have been fully considered but they are not persuasive.

In response to applicant's argument that Leman is devoid of describing scrolling or an input device for scrolling as recited, it is the examiner's position that the

description in Leman, column 4, lines 53-61, does in fact refer to a scrolling function for an input device and therefore is sufficient to teach this limitation. Furthermore, it should be noted that the claims as amended do not require a teaching of scrolling, as a teaching of moving a graphical pointer relative to the perpendicular axes satisfies the language of the claims.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

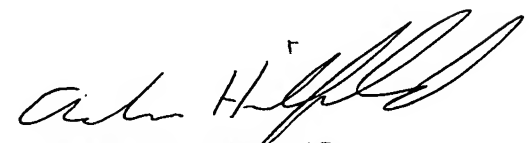
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jill E. Culler whose telephone number is (571) 272-2159. The examiner can normally be reached on M-Th 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Hirshfeld can be reached on (571) 272-2168. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

jec



ANDREW H. HIRSHFELD
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800